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CAMP COOKERY

*A Cookery and
Equipment Handbook*

**FOR BOY SCOUTS AND
OTHER CAMPERS**

By

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*To the Boy Scouts of America
this book is
respectfully dedicated*



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PREFACE

In planning the camping trip, the scout or camper should consider his own needs as carefully as the tourist considers those of his automobile. The significance of food and its relation to the efficiency and comfort of the human body are quite as important to the camper as the proper supplies and tools are to the smooth running of an automobile. Campers should know what to carry, and how to prepare these foods properly, in order to keep the human machine running most smoothly when living the rather unusual sort of life necessary when in camp.

When preparing for a camping trip, one need not feel that it is necessary to "rough it." While it is true that one must often be content with a limited variety of foods and equipment, yet if these are judiciously selected and the work of preparation done intelligently, one will never feel that he has "roughed it." It is not so much the great abundance or variety of supplies one has with him, but how resourceful he is in their use, that determines his success as a camper. Scouts, foresters, rangers and sportsmen will find it to their advantage, before starting out on trips, to determine systematically, not only the number of pounds that can be carried, but also the proportion and variety of food material actually needed, as well as the amount and type of equipment best suited to their needs. To camp successfully and get the greatest enjoyment out of it is a real art. One purpose for which this book is written is to help the Scout and camper make the most of camping trips, and get the greatest possible enjoyment from living out-of-doors.

PREFACE—*Continued*

It is also designed to meet the increasing demand for information which will assist Boy Scouts and other campers in the selection and preparation of necessary foods, make suggestions as to the equipment needed in camps, and be of help to those who desire to install camp cookery in schools, or conduct classes for Boy Scouts and Camp-Fire Girls.

The authors desire to express their indebtedness to Dean George W. Peavy, Professor H. S. Newins, and Professor J. P. Van Orsdel of the School of Forestry; Mrs. Ida. A. Kidder, Librarian, and Dr. A. D. Browne of the Physical Education department, all of the Oregon Agricultural College, who have given many helpful criticisms, and have contributed valuable material in the preparation of this handbook.

We also wish to acknowledge the suggestions made by many others, as well as certain material borrowed from Kephart's "Camp Cookery," Stewart Edward White's "Camp and Trail," and Government bulletins.

Oregon Agricultural College,

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PART I.

DIET IN CAMP—FOOD SUPPLIES FOR CAMP —EQUIPMENT FOR CAMP

Proper Diet in Camp

In no place is it as difficult to provide a proper diet as in camps, where only limited supplies can be taken. The three chief items of food in the average camp are bacon, dried beans and rice. These foods, plus some dried fruit, a quick bread, and a beverage, such as coffee or tea, form a fairly well-balanced ration. Some variety may be obtained by replacing the bacon and beans with cheese, nuts, ham, game or fish, the last two to be procured while in camp.

Since fresh vegetables are so very important in the diet, and are so difficult to carry, except at the start, the camper should avail himself of water cress, yellow dock, lamb's quarters, pepper-grass, mustard, miner's lettuce, dandelions, and any other edible plants which are to be found in the vicinity of the camp. All of these are cooked as greens with the exception of the water cress. This, as well as sorrel, may be eaten raw, often serving as a good filling for sandwiches when there is not time to cook a meal. It is also

very good eaten with bacon between cold biscuits.

During the seasons of the year when these edible plants cannot be obtained, mineral salts are supplied by the use of dried vegetables. Desiccated onions, potatoes, carrots, turnips and corn can take the place of fresh vegetables. Dried spinach is an invaluable addition to the diet, and should be used more liberally. Hard crackers and hard tack may often be a good substitute for the hot breads that are so common in camp.

Fruit in some form is an absolute necessity in the camper's diet, not only because of its mineral content, but also because of its bulk. There is of necessity a tendency to use foods of great concentration. The faults of such a diet may also be overcome to a great extent by the use of bran breads and more dried fruits and vegetables. It is also wise to derive more energy from cereals instead of so much from sugar and fat; indeed, much of the digestive trouble of campers is due to the large amount of fat used.

No matter what food is being purchased for use in camp, it is always economy to buy the very best grade on the market.

Food Supplies for the Camp

Transportation facilities govern very largely the quantity and kind of supplies which may be carried on any camping expedition. There are certain staple food materials, such as flour and beans, which are common to all camps; there are the desirable but bulky articles such as canned vegetables; and the often impossible luxuries such as eggs and cream. The forest ranger with a pack horse, the four-man hunting party, and the large lumber camp, all have different food problems; but there are several things to be considered in buying supplies for any of these. A food to be useful for camp and trail must contain the maximum amount of nutriment, or food value, with a minimum of bulk. Although these conditions limit the available food materials somewhat, it is possible to have more palatable and nourishing food, and also more variety than is usual in camp fare. A judicious choosing of 100 pounds of supplies will result in a variety which will add much to the health and comfort of the woodsman.

Ration List

A ration is the food estimated to be necessary for one man one day. The amount of various

articles in the following ration are designed to be sufficiently liberal for all circumstances.

Article	Unit	100 Rations
Fresh meat, including fish and poul-		
try (a)	Pounds	100
Cured meat, canned meat, or cheese (b)	Pounds	50
Lard	Pounds	15
Flour, bread or crackers	Pounds	80
Cornmeal, cereals, macaroni, sago,		
cornstarch	Pounds	15
Baking powder or yeast cakes . . .	Pounds	5
Sugar (syrup or strained honey) . . .	Pounds	40
Molasses	Gallons	1
Coffee	Pounds	12
Tea, chocolate, or cocoa	Pounds	2
Milk, condensed (c)	Cans	{ 20 40
Butter	Pounds	10
Dried Fruit (d)	Pounds	20
Rice and beans	Pounds	20
Potatoes or other fresh vegetables (e)	Pounds	100
Canned vegetables or fruit	Cans	30
Salt	Pounds	4
Spices	Ounces	4
Flavoring extracts	Ounces	4
Pepper or mustard	Ounces	8
Pickles	Quarts	3
Vinegar	Quarts	1
Soap		
Matches		

On the basis of this list, a party of six will consume 6 rations a day; 100 rations will therefore last 17 days. The cost of the above rations will vary, necessarily, with the locality. Where transportation is difficult, as by pack animals, the above list must be varied by

omitting the heavier provisions. This includes those containing the most moisture, such as all canned fruits and vegetables. These may be replaced by dried fruits and vegetables. Where fresh meat cannot be obtained, it must be replaced by additional bacon, ham, and corned beef.

Where provisions must be carried on men's backs, a still further cut must be made in the heavier articles. Under the most favorable conditions sufficient flour, bacon, rice, beans, oatmeal, cornmeal, tea, sugar, dried fruit, and salt should be provided.

One Month's Supplies for One Man on a Forest Trip

- 24 lbs. flour (includes flour, pancake flour, cornmeal in proportion to suit)
- 20 lbs. meat (bacon or boned ham)
- 6 lbs. rice
- $\frac{1}{2}$ lb. baking powder
- 3 lbs. coffee
- 1 lb. tea
- 12 lbs. sugar
- 8 lbs. cereal
- 1 lb. raisins
- 5 lbs. beans
- 3 lbs. or $\frac{1}{2}$ dozen erbswurst or powdered soups.
- 1 lb. dried carrots
- 1 lb. dried onions
- 2 lbs. dried potatoes
- *1 can dried eggs
- Salt and pepper
- 5 pint cans of condensed milk

One Month's Supplies for One Man on Pack Horse Trip

- 24 lbs. flour supplies (flour, flapjack flour, or cornmeal)
- 20 lbs. ham and bacon
- 2 lbs. hominy
- 6 lbs. rice
- 3 lbs. coffee
- 1 lb. tea
- 20 lbs. potatoes
- 1 lb. dried onions
- 12 lbs. sugar
- 3 lb. pail lard
- 3 lbs. rolled oats
- 5 lbs. mixed dried fruit (apricots, peaches, and prunes)
- Salt, pepper, cinnamon
- 5 pint cans of condensed milk
- 5 lbs. beans
- $\frac{1}{2}$ gallon heavy sirup
- 5 lbs. navy and brown beans
- *1 can dried eggs
- 2 lbs. dried corn
- 1 lb. dried carrots
- 1 lb. dried onions
- 1 lb. raisins
- *Not necessary.

The use of saccharine tablets is recommended by some campers because of the advantage in lightening a load. Such writers do not, however, seem to take into consideration the fact that, excluding fat, sugar is the most concentrated food that can be carried. One saccharine tablet may represent the sweetening power of one teaspoon of sugar, but it does not represent its food value.

(a) Eggs may be substituted for fresh meat

at the ratio of 8 eggs to 1 pound of meat. There are dried eggs on the market which are considered very satisfactory substitutes for fresh eggs. There are some egg substitutes, however, which are by no means a good substitute for fresh eggs.

(b) Fresh meats and cured meats may be interchanged on the basis of 5 pounds of fresh for 2 pounds of cured.

(c) Fresh milk may be substituted for condensed milk in the ratio of 3 pints of fresh for 1 pint of condensed. Powdered milk of a good quality may be used in place of condensed milk (1 pound of powdered milk to 9 pints of water). Condensed milk should be carefully sealed by the use of small disks of paper placed over the holes.

(d) Fresh fruit may be substituted for dried fruit in the ratio of 5 pounds of fresh for 1 pound dried. The dried cranberries and rhubarb make good sauces and are craved by most campers. Raisins, dried figs, dried prunes, and dried apples are excellent for camp use.

(e) Dried vegetables may be substituted for fresh vegetables in the ratio of 1 pound of dried for 3 pounds of fresh. Most of the

desiccated vegetables on the market are of good quality. It pays to purchase the best grade. Spinach, peas, carrots, onions, potatoes, corn, squash, beets, and string beans are excellent.

Suggestions

Cornmeal is a good substitute for a part of the white flour in corn bread, Johnny-cake, etc., giving that change in diet which is an important factor to be considered.

The coarse sort of hominy makes a good variety.

Rice is a very desirable camp food. It weighs little in proportion to its bulk, and one-half cup is ample for four persons for one meal. It contains much nutriment, and one does not easily tire of it. It may be served in many ways; boiled; boiled with raisins; boiled, then fried; made into baked puddings; cooked with cheese; and made into cakes.

Macaroni is bulky, but a small package goes a long way and is both palatable and nutritious. It may be obtained in small pieces an inch or two long, and in this form can be easily packed.

Peanut butter is a very acceptable substitute for butter, having the advantage of being

more easily handled, and not becoming rancid so rapidly.

With the increase in the cost of meats, nuts are coming into greater use as "meat substitutes." The partial substitution of nuts in place of meat in the diet is economy. Note the paragraph on page 42.

One pound of English walnuts costs 25 cents and gives
859 calories

One pound of peanut butter costs 20 cents and gives
2741 calories

One pound of round steak costs 20 cents and gives
652 calories

Note: The above figures are average prices under normal conditions.

As shown by these figures, beef round costs three times as much as peanut butter when considered in terms of energy. This indicates the concentration of nuts as compared with meat. They should therefore be included in the ration lists for campers.

Lard or its substitutes may be used. Butter is a luxury not usually carried on long trips. However, many campers find it possible always to have fresh butter by carrying it in a pail, and at each stop placing this pail in a stream where it is kept perfectly cold. Butter put out in two-pound, hermetically sealed packages, has been carried and used after a period of three months.

Raisins and dried fruit, including figs, should be on every provision list, while sweet chocolate (used extensively in the army) is a desirable accessory to camp fare because of its concentration.

One consumes much sugar when out in the open. It is a quick and comparatively cheap source of energy. It is also very concentrated, one pound of sugar containing much food value. One need not try to find a more concentrated substitute. Sirup is good on flapjacks and bread, and should always be in camp in some form.

Beans are rich in sustenance, light in weight, and compressed in bulk. They are not easily cooked at a high altitude. Lima beans are the easiest cooked. A few brown beans may be added for variety.

Even though canned tomatoes have small food value, and mean much added weight, it is wise to carry them into summer camps or in arid regions. They are most refreshing at the end of a long hard day, and are valuable for their mineral content.

Tea or coffee may be taken. There are brands of coffee-extract now on the market which are easily made, and seem to be liked by many people. These preparations are

usually a very fine powder, put up in convenient tin boxes. One-half teaspoonful is placed in a cup, boiling water is poured on, and the coffee is made. Cereal coffee is preferred by some, and is prepared with the same ease.

A few ounces of cinnamon, allspice, nutmeg, ginger, cloves and other spices can be easily taken; they help to make desserts possible, and some of them may also be used in the curing of meats.

The most practical towels to carry are those made from house-lining muslin. They have the advantage of absorbing water readily even when new.

SUGGESTIVE TABLE OF SUSTENANCE PRE- PARED BY U. S. FOREST SERVICE

(Food required for 1, 2, 4, 6, 8 and 10 men per day)

Article	Number of Men					
	1	2	4	6	8	10
Flour, pounds.....	1.00	2.00	4.00	6.00	8.00	10.00
Cornmeal, pounds.....	.05	.10	.20	.30	.40	.50
Breakfast foods, pounds	.10	.20	.40	.60	.80	1.00
Rice, pounds.....	.05	.10	.20	.30	.40	.50
Crackers, pounds.....	.05	.10	.20	.30	.40	.50
Potatoes, pounds.....	.90	1.80	3.60	5.40	7.20	9.00
Sugar, pounds.....	.40	.80	1.60	2.40	3.20	4.00
Coffee, pounds.....	.12	.24	.48	.72	.96	1.20
Butter, pounds.....	.10	.20	.40	.60	.80	1.00
Cured meats, pounds..	.50	1.00	2.00	3.00	4.00	5.00
Fresh meat or fish, lbs.	.25	.50	1.00	1.50	2.00	2.50
Tea, pounds.....	.01	.02	.04	.06	.08	.10
Lard, pounds.....	.15	.30	.60	.90	1.20	1.50
Vegetables, pounds....	.10	.20	.40	.60	.80	1.00
Onions, pounds.....	.10	.20	.40	.60	.80	1.00
Beans, pounds.....	.15	.30	.60	.90	1.20	1.50
Chocolate, pounds....	.02	.04	.08	.12	.16	.20
Baking powder, pounds	.02	.04	.08	.12	.16	.20
Soda, pounds.....	.01	.02	.04	.06	.08	.10
Salt, pounds.....	.04	.08	.16	.24	.32	.40
Macaroni, pounds.....	.02	.04	.08	.12	.16	.20
Cheese, pounds.....	.10	.20	.40	.60	.80	1.00
Pepper, pounds.....	.01	.02	.04	.06	.08	.10
Cornstarch and tapioca, pounds.....	.05	.10	.20	.30	.40	.50
Spices, pounds.....	.05	.10	.20	.30	.40	.50
Fruit, dried.....	.15	.30	.60	.90	1.20	1.50
Meat, canned.....	.05	.10	.20	.30	.40	.50
Vegetables, canned....	.10	.20	.40	.60	.80	1.00
Tomatoes, canned....	.10	.20	.40	.60	.80	1.00
Corn, canned.....	.10	.20	.40	.60	.80	1.00
Fruit, canned.....	.15	.30	.60	.90	1.20	1.50
Milk, canned.....	.10	.20	.40	.60	.80	1.00
Pickles, canned.....	.03	.06	.12	.18	.24	.30
Extract, pints.....	.04	.08	.16	.24	.32	.40
Catsup, bottles.....	.02	.04	.08	.12	.16	.20
Soap, bars.....	.05	.10	.20	.30	.40	.50
Matches, boxes.....	.01	.02	.04	.06	.08	.10
Lemons, dozen.....	.01	.02	.04	.06	.08	.10
Candles, dozen.....	.05	.10	.20	.30	.40	.50
Eggs, dozen.....	.10	.20	.40	.60	.80	1.00
Coal oil, gallon.....	.01	.02	.04	.06	.08	.10
Pancake flour, pounds.	.06	.12	.24	.36	.48	.60
Sago, pounds.....	.02	.04	.08	.12	.16	.20

This table is EXTREMELY liberal. The quantity of salt specified appears insufficient; of spices excessive.

FOOD VALUE OF ONE POUND OF COMMON FOOD MATERIALS

Article	Lb.	Comparative Food Value	Calories
LARD	1		4082
BUTTER	1		3488
WALNUTS hulled	1		3199
CHOCOLATE	1		2772
PEANUT BUTTER	1		2741
BACON	1		2597
PEANUTS hulled	1		2487
CHEESE	1		2079
SUGAR	1		1814
ROLLED OATS	1		1803
MACARONI	1		1624
CORN MEAL	1		1613
FLOUR	1		1603
RICE	1		1591
BEANS	1		1564
MILK condensed sweetened	1		1480
DATES	1		1416
RAISINS	1		1403
APPLES DRIED	1		1318
MOLASSES	1		1301
APRICOTS	1		1260
BREAD	1		1174
PRUNES	1		1116
BEEF DRIED	1		760
MILK condensed unsweetened	1		757
EGGS FRESH	1		595
CORN CANNED	1		445
MILK WHOLE	1		314
POTATOES fresh	1		304
PEAS canned,	1		251
APPLES	1		214
ORANGES	1		169
TOMATOES canned	1		103
CABBAGE	1		100

A calorie is the amount of heat required to raise one pound of water through 4 degrees F. Food value is estimated in terms of calories. A man doing average work demands approximately 3000 calories of food per day. The length of lines in this graph represent the comparative food value of one pound of some of the foods most common in camp.

Camp Equipment

For a party of six, where transportation is by wagon, the following are the essentials of the living equipment for the camp—that is, the equipment exclusive of that required for transportation.

3 (7x9) tents (2 for sleeping, 1 for storage and cooking)
45 feet of $\frac{5}{8}$ inch rope

In winter 3 heating stoves, also 1 small (sheet iron) wood cooking stove, with pipes.

2 mess boxes, one for cooking utensils, the other for tableware and light provisions, made of pine or cedar, screwed together, with hinged tops and compartments; also an inside cover, the full width of the top, which may be used as a bread board. When the lids are opened out and the two mess chests placed together they form a table of the width of the mess chests placed together and a length four times their thickness. These chests should be 2 feet deep, 20 inches wide, and 24 to 30 inches long, so as just to fill a wagon bed.

The above chests, although desirable, are by no means indispensable, for the resourceful camper can improvise similar conveniences with the available materials and tools at hand.

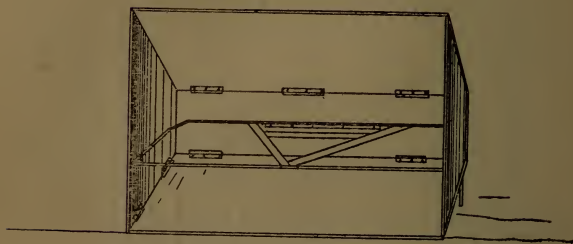
Mess kit may consist of the following articles:

- 2 pepper and salt boxes (aluminum ware)
- 2 buckets (collapsible canvas)
- 6 cups (enameled)
- 1 bread pan (tin)
- 2 frying pans
- 2 two-quart nesting stew pans (enameled ware)
- 1 half-gallon coffee pot (enameled ware, with wire bail handle)

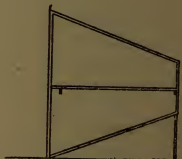
- 1 tin measuring cup or $\frac{1}{2}$ pint tin cup for measuring
- 4 enameled camp kettles with covers, size ranging from one to three gallons, so as to nest one within the other
- 6 bowls for soup, oatmeal, etc. (enameled)
- 1 Dutch oven
- 1 dishpan (heavy tin)
- 10 plates (enameled)
- 1 quart cup (tin)
- 2 large sharp knives
- 1 butcher knife
- $\frac{1}{2}$ dozen steel black-handled knives and forks
- $\frac{1}{2}$ dozen plated tablespoons
- 1 cooking fork (12 inches long)
- Few feet of baling wire (about 15 gauge)
- Pair of plyers (side cutting)
- 1 dozen plated teaspoons
- 1 kerosene oil can
- White oilcloth (for table)
- Towels
- 1 wash basin (enameled ware)

Where camp equipment is transported on the backs of animals, aluminum and tin should be substituted for enameled ware in order to reduce the weight, and many of the above articles must be dispensed with. The stoves for baking will be replaced by a tin or aluminum reflector or Dutch oven. The aluminum reflector is more easily kept bright than the tin, thus enabling it to reflect heat more effectively. When not in use, the reflector folds to an inch in thickness and about twelve inches by eighteen inches in dimension. It weighs only about two or three pounds, and costs from two to four dollars.

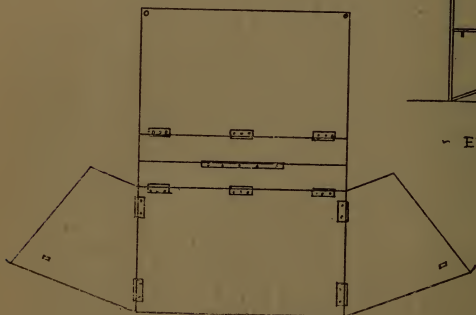
REFLECTOR



- FRONT VIEW -



- END VIEW -



PLAN

Parts hinged
Oven can be folded together when not in use

Reflector

In place of a reflector a Dutch oven may be used; a device, however, which has several undesirable characteristics. It is shaped like a high and heavy iron kettle on short legs, and is provided with a massive sunken cover. It is not only heavy to carry, but is awkward to pack; but for long slow cooking it is excellent.

For transportation on men's backs, practically everything must be dispensed with but a few tin or aluminum plates, cups, knives, forks, spoons, nesting pails, frying pan, and stew pan.

All of these articles may be found in the aluminum camp kits which are light, compact, and complete, and which nest in a very small place. These kits are on the market at prices from \$2.50 to \$10.00.

The miscellaneous camp tools may consist of some or all of the following, if transportation facilities permit:

1 ax

1 hatchet

Assorted nails

Quart canteens covered with cloth and canvas, or in arid regions a one-gallon canteen to each man.

Small files

Lanterns

Assorted rope and string

Whetstone
Shovel
Saw

Note: The use of ashes for the cleaning of greasy plates and scouring smoky kettles will save spending money for commercial cleaners. Fine sand can well be used on the steel or iron utensils, without injury to them.

Newspapers are a splendid substitute for cloths in scouring.

Note: The Red Cross soldier's kit, which contains sanitary gauze, safety pins, iodine, etc., is the safest and easiest form in which such necessary articles can be carried. They may be procured from Bauer & Black, Chicago.

Selection of Camp Site

In choosing a camp site one of the first considerations should be that of elevation. Swampy land should be avoided and protection from wind and rain should be sought. The supply of wood should not be overlooked when choosing a camp.

One of the most important considerations in placing a camp is nearness to a wholesome and adequate water supply. The source of danger in water is always human or animal pollution. Often it would be wiser to choose a pond which may be inspected than a bright clear stream which may be polluted at a point above. Unpolluted surface water is difficult to find, and streams are often dangerous sources of water supply. The idea

still prevails that running water purifies itself. However, according to some authorities in standing water there is greater chance for the disease germs to die out. Ground water from a spring or well is usually safer than from a pond or stream. A water supply should be protected from surface drainage. Should it be necessary to use water, the safety of which is questioned, it should be boiled, for boiling will destroy disease germs.

It is not only important to choose the site with great care, but prevent its becoming unsanitary through carelessness. All refuse should be disposed of through burning or burial. Lack of care in these matters has been the cause of serious illness and even deaths in camp. Through the proper disposal of waste, cleanly habits, and avoiding of swamps, danger of typhoid and malarial fevers may be reduced.

Cooking Fire for a Small Camp

There are many ways of building the cooking fire. The essential in each case, however, is a good permanent draft. For frying, making coffee and similar cooking operations, the fire should be small but hot. The wood used

should be of dry hardwood sticks, an inch or less in diameter and about a foot long. First build a fire of these and let it burn down to form a bed of coals. Have a supply of the smaller sticks ready, so that if the fire dies down too much it may be replenished. With this sort of a fire, the heat is *under* the utensils, and it is not necessary to tie a pole to the frying pan handle as is usually the case when frying over a fire made with large, long sticks of wood.

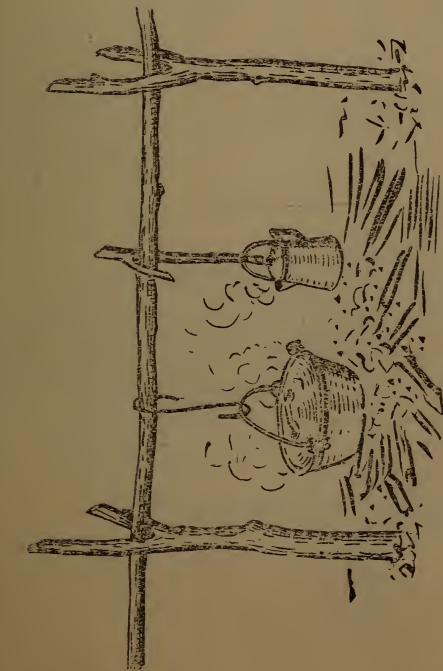
A draft is secured by the method usually employed in sheep camps. The site is chosen and an excavation is made, removing the soil to a depth of twelve inches or about the depth of the shovel. The hole thus made should be approximately three to four feet long and fifteen to twenty-four inches in width. The side exposed to the prevailing wind is then shoveled away, allowing the free entrance of air. This opening is the front of the cooking fire. The air going in passes along the side walls to the rear and thence upward, thus completing the draft. Select two green poles of sufficient length to extend over the ends of the hole (four to six inches in diameter), one to serve as a back log, the other as a front log. Lay the poles over the hole,

spacing them the proper distance to support a camp kettle, frying pan, or coffee pot. Kindle the fire beneath and proceed with the cooking. The poles can be replaced from day to day as they burn away. When cooking frying pan bread by reflected heat, usually a dry front pole is preferred to a green, because the dryer pole, being somewhat charred, combines with the hot coals beneath to produce a greater amount of reflected heat.

Methods of Supporting Cooking Utensils

The pole from which kettles or meats are hung is usually known as a crane. This crane is made from small tough limbs of trees. Any one of the styles shown in cuts 1, 2, and 3 may be used successfully. The pot-hooks are made from saplings or number 9 wire, as shown in cuts 5 and 6. The use of these hooks often prevents burning of the hands when handling kettles. If hooks of different lengths are made the desired intensity of heat can easily be secured by regulating the distance of the kettle from the fire. Drawing number 2 shows a crane especially well suited to the roasting of a bird or other meat. For such purposes the pole is much longer, and from

the upper end a long wire is hung. The bird is then securely fastened to the lower end of this wire, where it is allowed to swing during the roasting process. Figure number 4 shows a cooking fire often used in temporary camps. The large green logs are placed farther apart at one end than the other, thus giving support to kettles of different sizes as well as aiding in giving the fire a better draft. The same results may be obtained by using stones in place of green logs, thus saving time as well as reducing the danger from fire when breaking camp.



Method of supporting cooking utensils

1





Method of supporting cooking utensils



4

Method of supporting cooking utensils

Making a Fireless Cooker in Camp

It is a very simple matter to construct a fireless cooker in camp if one has given it some thought before starting, and supplied oneself with enough material to make the cooker. This material need not be "excess baggage," but may be utilized in constructing the pack for the trip.

It is best to construct a box about the same size and shape as the box used in shipping two five-gallon cans of oil. These pack readily on a mule and hold a surprising amount of camp material. The material, to be at its best, should be about one inch thick for the end pieces and three-quarter inch thick for the sides, bottom and cover. Such thickness will stand more pressure in packing. If this is impossible, use a plain oil packing box.

Obtain a sufficient supply of excelsior, pulverized cork, paper or other insulating material to fill the box heaping full. This material may be used in the packing.

In constructing the cooker, see that the sides and bottom of the box are solid; it may be necessary to add more nails. See that all cracks have a strip nailed over them; and in general, make the box as nearly air-tight as possible.

Place pasteboard, if available, around the inside of the box and on the bottom. The large pasteboard from a wholesale cereal package is best. Then pack insulating material into the bottom of the box. Place the vessel to be used in the center of the box and pack this material firmly around it. Any air-tight vessel may be used. Aluminum is best, for it heats up quicker and maintains a more even heat for a longer period. Regular fireless cooker vessels, having clamped lids, may be purchased.

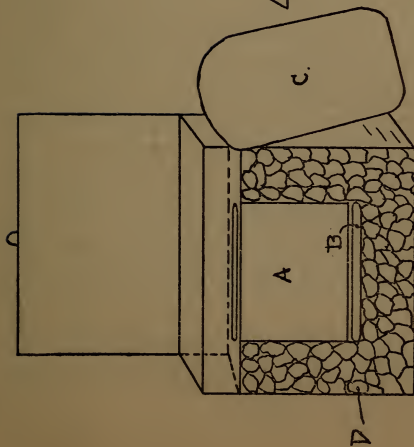
After packing the excelsior or other material around the vessel, remove the vessel and line the opening with pasteboard, to aid in maintaining heat and in keeping the wall from breaking down.

A layer of pasteboard may also be placed over the entire top of the insulating material, leaving a hole to match that in this material. In constructing the lid, cleats about three-quarter inch thick and two and one-half to three inches wide should be nailed along the edges, both at the ends and sides. These are made to fit down closely around the sides and ends of the box when closed, thus conserving all the heat possible.

A heavy cloth cushion filled with excelsior or cork should be provided. This must be full enough to make it difficult to shut the lid, thus assuring an air-tight vessel. Hinges and a hook may be used, or a heavy leather strap may be cut into hinges and a large boulder used to hold the lid down tight.

A fireless cooker is a great convenience, making it possible to cook cereal over night, and other foods such as beans, during the day, thus giving a well-cooked product.

In order to cook any food in a fireless cooker, first cook until heated through in the cooker kettle, cover and place in the cooker while it is still very hot. A hot soapstone disk, flat stone, or stove lid will make the cooking more rapid. The food may need to be reheated before serving.



Fireless Cooker
 A—Kettles B—Soapstone or Lid
 C—Pillow to Cover Kettle Container
 (Size of Box)
 D—Insulating Material



FIGURE III

Kettle Container
 A—Metal Rim
 B—Container
 C—Cover



Triple Kettle

PART II.

CLASSIFICATION OF FOODS— MEAL PLANS—RECIPES

What the Day's Food Should Supply

The accompanying meals would supply the following substances in about the right proportions to keep the camper in healthful condition and to make the food taste good, providing they were well prepared.

FROM FARMERS' BULLETIN 808, HOW TO SELECT FOOD

“(a) Mineral substances of great variety (lime salts, compounds of phosphorus, iron, and others). These are used by the body for building material, and are found in all parts of it. They also produce substances within the body tissues which tend to offset acid substances produced in the tissues in the course of digestion of meats and cereals and serve many other important uses. Without fruits and vegetables the meals would be likely to lack certain mineral substances. Without milk they would be lacking in a mineral substance specially needed by children; that is, lime.

“(b) Protein. Protein serves as fuel for the body and also provides a certain import-

ant element—nitrogen—which is needed in the case of children for growth, and in the case of both children and grown people to keep the body in repair. Without the meat or meat substitutes (including milk) the meals would be lacking in this body-building material.

“(c) Starch. This is one of the chief fuels of the body and is supplied mainly by the cereal foods.

“(d) Sugar. This serves as fuel for the body and to flavor the food. It is found in milk, fresh fruits and many other foods; but unless small amounts of very sweet substances—sugar itself, sirup, or honey—are used, the diet is likely to be lacking in it.

“(e) Fat. This serves as body fuel, and also improves the flavor and texture of the food. It is present in meats, nuts and many other foods, but unless small amounts of specially fat materials, like butter, oil, or cream, are used, the meals are likely to be lacking in it. Moreover, dishes cooked without a certain amount of fat, and meals served without butter or some substitute seem, to most persons, dry and unpalatable.

“(f) Cellulose. This is the material which makes up the framework of plants. It gives

bulk to the diet and may tend to prevent constipation. Without the fruits and vegetables the meals would be lacking in this important element.

“(g) Certain newly discovered substances in very small amounts, which are believed to play an important part in keeping people well and in promoting the growth of children. Without milk in the diet some of these substances, particularly those necessary for children, would be lacking, and without meat, milk, eggs, fruits, and vegetables, others needed by persons of all ages might not be present in sufficient amounts.

“(h) Flavorings and condiments. In most families some materials are used in preparing or serving food which add to the attractiveness of the meals without furnishing the body any nourishment. Among these are salt, pepper, vinegar, lemon juice, spices, seasoning herbs, horse-radish, flavoring extracts, and many other materials often spoken of as “condiments.” These are not discussed at length, because they are not absolutely needed by the body. They may, however, be very useful in making an otherwise unattractive diet taste good. In fact, the secret of making inexpensive meals attractive lies

largely in the skillful use of seasoning and flavors, and in this way they may well be worth the cost they add to the diet, even if they do not increase its actual food value.

“Any kind of food contains one or more of the substances just described, and they are combined in as many different ways as there are kinds of food. A satisfactory diet contains all of them, and each in its proper proportion, and the problem of planning meals is really that of choosing foods which will do this.

“Grouping Foods to Show Their Uses”

“Perhaps as easy a way as any to select the right foods is to group the different kinds according to their uses in the body, and then to make sure that all the groups are represented regularly in the meals. Fortunately no more than five groups need be considered: (1) Fruits and vegetables; (2) meats and other protein-rich foods; (3) cereals and other starchy foods; (4) sweets; and (5) fatty foods.

“*Group 1*—Fruits and vegetables, such as apples, bananas, berries, citrus fruits, spinach, and other greens, turnips, tomatoes, melons, cabbage, green beans, green peas, green corn, and many other vegetables and fruits. With-

out these the food would be lacking in mineral substances needed for building the body and keeping it in good working condition; in acids which give flavor, prevent constipation, and serve other useful purposes; and in minute quantities of other substances needed for health. By giving bulk to the diet they make it more satisfying to the appetite.

“Group 2—Meat and meat substitutes, or protein-rich foods: moderately fat meats, milk, poultry, fish, cheese, eggs, dried legumes (beans, peas, lentils, cowpeas, peanuts), and some of the nuts. These are sources of an important body-building material, protein. In the case of children part of the protein food should always be whole milk.

“Group 3—Foods rich in starch: Cereals (wheat, rice, rye, barley, oats, and corn) and potatoes (white and sweet). Cereals come near to being complete foods, and in most diets they supply more of the nourishment than any other kind of food. It is not safe, however, to live only on cereals. The grains may be simply cleaned and partially husked before cooking, as in cracked wheat and Scotch oatmeal; they may be ground into flour and used as the basis of breads, cakes, pastry, etc.; or they may be partially cooked

at the factory, as in many breakfast preparations; or they may be prepared in the form of such pastes as macaroni, noodles, etc. In all these forms they furnish the body with the same general materials, though in different proportions.

“Group 4—Sugar (granulated, pulverized, brown, and maple), honey, molasses, sirup, and other sweets. Unless some of the fuel is in this form the diet is likely to be lacking in flavor.

“Group 5—Foods very rich in fat: Bacon, salt pork, butter, oil, suet, lard, cream, etc. These are important sources of body fuel. Without a little of them the food would not be rich enough to taste good.

“Some food materials really belong in more than one group. Cereals, for example, supply protein as well as starch; potatoes supply starch as well as the mineral matters, acids, cellulose, and body-regulating substances, for which they are especially valuable; and most meat supplies fat as well as protein. For the sake of simplicity, however, each material is here grouped according to the nutrient for which it is usually considered most valuable. These points are all brought out in more detail

in other bulletins which discuss the special groups.

“The lists given below show some of the common food materials arranged in these five groups. If the housekeeper will consult them in planning meals until she has learned where each kind of food belongs, she will have taken the first step toward providing a diet which will supply all the food needs of her family. It will be only one step, to be sure, but it should prevent two mistakes—that of serving meals that have not sufficient variety, and that of cutting down in the wrong places when economy either of time or money is needed:

“Group 1—Foods depended on for mineral matters, vegetable acids, and body-regulating substances

Fruits—

Apples, pears, etc.
Bananas
Berries
Melons
Oranges, lemons, etc.

Vegetables—

Salads—lettuce, celery, etc.
Potherbs or “greens”
Potatoes and root vegetables
Green peas, beans, etc.
Tomatoes, squash, etc.

Group 2—Foods depended on for protein

Milk, skim milk,
cheese, etc.
Eggs
Meat
Poultry

Fish
Dried peas, beans, cow-peas, etc.
Nuts

Group 3—Foods depended on for starch

Cereal grains, meals, flours, etc.	Macaroni and other pastes
Cereal breakfast foods	Cakes, cookies, starchy puddings, etc.
Bread	Potatoes and other starchy
Crackers	vegetables

Group 4—Foods depended on for sugar

Sugar	Candies
Molasses	Fruits preserved in sugar,
Sirups	jellies, and dried fruits
Honey	Sweet cakes and desserts

Group 5—Foods depended on for fat

Butter and cream	Salt pork and bacon
Lard, suet, and other cooking fats	Table and salad oils"

Plan of Meals

FOR MEN WITH NO PACK HORSE

<i>Breakfast—</i>	<i>Dinner—</i>	<i>Supper—</i>
Quick bread	Quick bread	Soup
Salt meat	Meat or meat substitute	Vegetable
Gravy	Starchy vegetable	Bran crackers or biscuits
Beverage	Green vegetable (dried vegetable or edible weeds)	Fruit
	Dessert	Beverage
	Beverage	

Suggestive Food Lists

<i>Quick breads—</i>	<i>Cereals—</i>
Dough boys	Rolled oats
Emergency biscuits	Farina
Corn bread	Rice
Bran gems	Hominy
Flap jacks	Macaroni
Dough gods	
Sour dough biscuits	

Vegetables—Dried—

Navy beans
Lima beans
Lentils
Peas
Carrots
Onions
Potatoes, etc.

Fruit—Dried—

Peaches, stewed or raw
Apricots, stewed or raw
Prunes, stewed or raw
Figs, stewed or raw
Dates
Raisins

Desserts—

Prune, Dumplings, Pie
Apricot, Dumplings, Pie
Peach, Dumplings, Pie

Fresh—

Water cress
Sorrel
Lamb's quarter
Mustard
Yellow dock
Dandelion

Beverages—

Coffee
Tea
Cocoa

Meat—

Bacon
Ham
Game or fish

Meat Substitutes—

Cheese
Beans
Eggs

Suggested Plan of Meals
FOR MEN WITH PACK HORSE

Breakfast—

Cereal
Salt Meat
Gravy
Quick bread
Beverage

Dinner—

Meat or substitute
Vegetable
Starchy
Green
Quick bread
Dessert
Beverage

Supper—

Soup
Vegetable
Laxative
bread
Fruit
Beverage

Food Lists

Cereals—

Rolled oats
Rice
Graham mush
Farina and dates or figs
Cornmeal mush

Fresh Meat—

Mulligan
Fish chowder, cakes, baked
Creamed salmon
Meat pie
Liver and bacon, etc.

Food Lists—Continued

Salt Meat—

Bacon
Bacon fritters
Bacon and dumplings
Bacon and gravy
Ham and gravy
Corn beef stew or hash
Kippered herring
Codfish balls
Creamed dried beef

Meat substitutes—

Cheese
Beans
Eggs

Vegetables—

Dried—

Onions
Carrots
Spinach
Macaroni and cheese
Baked beans
Lima beans
Lentils
Hominy

Fresh—

Potatoes
 Baked, boiled, fried
 Lyonnaise
Water cress
Edible weeds cooked
Fried onions

Canned—

Corn
Tomatoes

Soups—

Bean
Split pea
Lentil
Peanut butter

Breads—

Quick—

Dough boys
Corn bread
Brown bread
Baking powder biscuits
Emergency biscuits
Bran gems
Graham gems
Flapjacks
Griddle cakes
Dough gods
Sour dough biscuits

Desserts—

Fruit (stewed)
 Prunes
 Apricots
 Peaches
 Figs
 Raisins
 Dates
 Prune, etc., pie, dump-
 lings, loaf
 Cinnamon rolls
 Gingerbread
 Cake

BEVERAGES

Cocoa

1 cup condensed milk diluted to 3 cups, 3 teaspoons cocoa, 3 teaspoons sugar (if cocoa is unsweetened). Heat the milk, add sugar to the cocoa and mix with a little hot milk. Add the remainder of the milk, heat and serve.

Coffee

Add coffee to cold water, keep hot by the fire, allowing it to simmer but not boil until desired strength. Add cold water to settle. The coffee may be put in a small bag, made of muslin or cheesecloth, tied loosely, and the bag of grounds removed before serving.

Coffee Extract


Put $\frac{1}{2}$ teaspoon (more or less according to taste) in a cup and add boiling water.

Tea

1 teaspoon of tea for each cup. Pour over fresh boiling water, set aside in a warm place 3 or 4 minutes to steep, then serve.

Cereal Coffee

Put $\frac{1}{2}$ teaspoon (more or less according to taste) in a cup and add boiling water. Stir. Add cream and sugar and serve.

 All the measurements used are "level" unless otherwise specified.

Breads

In camp man probably realizes more fully the truth of the statement that "bread is the staff of life" than he does in any other type of living. This adage, however, does not apply to bread "made out of putty and weighted with lead," a description which too often represents the camp bread. This need not be the case, however, for good wholesome breads may be made in camp as well as in the kitchen.

The baking powder breads are most commonly used in camp, being quickly and easily prepared. These involve the use of chemical leavening agents which render them less wholesome than those made by means of yeast (dry yeast may be carried into camp), as a source of leavening power. In addition to the unwholesomeness, one grows very tired of the baking powder breads, and the appetite demands a change which should be supplied in the form of yeast bread, salt-rising bread, etc., recipes for which are given in this book. It is very desirable to use some laxative bread at least once a day, as the

deficiency of vegetables is likely to cause constipation. The bran breads given are excellent for this purpose.

RECIPES

All of the following recipes are made on a basis of level measurements unless it is otherwise stated.

Flapjacks

- 2 cups of pancake or prepared flour
- Enough water to make a thin batter (about $\frac{3}{4}$ cup) or
- 2 cups flour
- 4 teaspoons baking powder
- $\frac{1}{2}$ teaspoon salt
- About $\frac{3}{4}$ cup water or condensed milk

Mix the dry ingredients very thoroughly and add liquid; beat very well before frying. The pan must be very hot and well oiled, but not too much fat should be used or the cakes will be soggy.

Griddle Cakes

- $2\frac{1}{2}$ cups flour
- 1 tablespoon sugar
- $\frac{1}{2}$ teaspoon salt
- 4 teaspoons baking powder
- $1\frac{1}{2}$ cup milk (condensed may be used)
- 1 egg if possible

Add the milk to the dry ingredients, and then the egg, beating vigorously before frying.

Caramel Sirup

1 cup water

1½ cup brown sugar

Boil until the consistency of maple syrup.

Dough-Boys

2 cups flour

4 teaspoons baking powder

½ teaspoon salt

2 tablespoons sugar

Water or condensed milk to make a stiff batter

Mix the flour, baking powder, and salt, and add enough water for a stiff dough. Drop by spoonfuls into an inch of bacon fat which is smoking hot, and cook until a deep brown on both sides.

Emergency Biscuit

2 cups flour

1 tablespoon sugar

4 teaspoons baking powder

½ teaspoon salt

2 tablespoons lard or bacon fat

¾ cup water or condensed milk

Mix the dry ingredients, then add the melted fat and enough liquid to make a soft dough that can be dropped from a spoon on a pan without spreading much. Bake in reflector or improvised oven.

Baking Powder Biscuit

Same ingredients as for Emergency Biscuit, only less liquid is used, and the dough is patted out to one-half inch thickness and cut with a can into biscuits and baked.

Bran Muffins

- 1 cup bran
- 1 cup flour
- 4 teaspoons baking powder
- $\frac{1}{2}$ teaspoon salt
- 1 tablespoon lard or bacon fat
- 1 tablespoon sugar
- $\frac{2}{3}$ cup water or condensed milk

Mix dry ingredients, and add the liquid, then the melted fat. Mix well and bake in muffin pan, or drop from a spoon on a biscuit pan.

Bran Bread

Add a few raisins to the recipe for Bran Muffins and bake in a loaf.

Quick Muffins

- 2 cups flour

3 teaspoons baking powder
1 tablespoon sugar
 $\frac{1}{2}$ teaspoon salt
1 cup milk or water
1 tablespoon melted fat
1 egg if possible

Mix dry ingredients, add the liquid, melted fat, and the egg. Mix well. Bake in a muffin pan, or in a flat biscuit pan.

Cinnamon Rolls

2 cups flour
2 tablespoons raisins cut in small pieces
4 teaspoons baking powder
2 tablespoons sugar
 $\frac{1}{2}$ teaspoon salt
4 tablespoons lard or other fat

Water or condensed milk to make a soft dough (about $\frac{2}{3}$ cup)

Roll the dough about $\frac{1}{4}$ inch thick and spread on it a little melted fat and the following mixture: 1 teaspoon cinnamon, 3 tablespoons sugar, 1 tablespoon flour, 1 tablespoon water. Roll the sheet of dough into a cylinder and cut off $\frac{1}{2}$ inch slices. Spread the top with sugar and cinnamon mixture, and bake. The dough may be sprinkled with sugar and cinnamon if preferred.

Hot Cross Buns

- 2 cups flour
- $\frac{1}{4}$ teaspoon salt
- 3 teaspoons baking powder
- 4 tablespoons fat
- $\frac{1}{2}$ cup liquid (water or condensed milk)
- $\frac{1}{4}$ teaspoon nutmeg
- $\frac{1}{4}$ teaspoon allspice or cinnamon
- $\frac{1}{2}$ cup raisins or currants

Mix as for baking powder biscuits, adding the spices and the fruit cut in pieces to the other dry ingredients. Shape into cakes with the hands and mark with a cross on top. Bake about 20 minutes.

Corn Bread

- 1 cup flour
- $\frac{1}{2}$ cup yellow cornmeal
- 3 teaspoons baking powder
- 1 tablespoon sugar
- 1 tablespoon lard
- $\frac{1}{2}$ teaspoon salt
- $\frac{3}{4}$ cup water or condensed milk
- 1 egg if desired

Add the liquid to the dry ingredients, and then the melted fat and mix. This bread may be baked as muffins or as a loaf.

Brown Bread

$\frac{1}{2}$ cup molasses
4 tablespoons sugar (brown if possible)
 $\frac{2}{3}$ cup liquid (water or condensed milk)
 $\frac{1}{2}$ teaspoon soda
 $\frac{1}{2}$ teaspoon salt
2 teaspoons fat
2 cups graham flour
4 teaspoons baking powder
A few raisins if desired

Add the molasses and liquid to the dry ingredients and mix. Then steam for 3 hours, by setting corn sirup cans or baking powder cans filled with the mixture in a kettle of boiling water, and closing tightly.

Graham Gems

$1\frac{1}{2}$ cups graham flour
 $\frac{1}{2}$ cup flour
3 tablespoons sugar
 $\frac{1}{2}$ teaspoon salt
 $1\frac{1}{2}$ tablespoons melted fat
3 teaspoons baking powder
 $1\frac{1}{4}$ cups liquid

Add the liquid to the dry ingredients. Mix well. Then bake in muffin pans, or drop on an oiled biscuit pan and bake.

Corn Dodgers

2 cups cornmeal

$\frac{1}{2}$ teaspoon salt

1 teaspoon sugar

Wet these materials with boiling water and shape into flat cakes, about an inch thick, and fry, or bake on hot stones.

Pulled Fire Bread

Make a good stiff dough, using

1 cup flour

$\frac{1}{4}$ teaspoon salt

About 2 or 3 tablespoons water

Pull it out into a long thin strip, wrap this strip corkscrew-like on a stick with its bark on. Hold over very hot fire or ashes, turning constantly until done. This bread is easily prepared when equipment is limited.

Unleavened Bread

2 cups flour

$\frac{1}{2}$ teaspoon salt

1 teaspoon sugar

Mix with water to stiff dough and knead and pull until tough and elastic. Roll out thin as a soda cracker, score with a knife, and bake. If mixed with a very small amount of water this bread may be kept for a long time like hard tack.

Ranchman's or Sour Dough Bread

In a five-pound lard pail mix enough flour and water to make a medium thick batter. To this add one tablespoon of sugar. The pail should be only $\frac{2}{3}$ full. Allow this to stand until the mixture has fermented and then become sour. Pour out about $\frac{1}{2}$ cup of the sour dough to start the fermentation in a new mixture. To the dough in the pail add $\frac{1}{2}$ teaspoon soda, $\frac{1}{2}$ teaspoon salt, 1 teaspoon melted lard, and enough flour to make a very soft dough. Mix well. Melt a teaspoon of lard in a pan and drop the dough in by the spoonful, turning it over in the fat. Allow to rise until double in bulk and then bake. The $\frac{1}{2}$ cup of sour dough which has been reserved may be poured back into the lard pail and the original quantity of batter stirred up. This will be sour and ready for use in a very few hours. This procedure may be continued indefinitely. The exact amount of soda needed depends upon the sourness of the dough, and it must be determined by experience.

Salt-Rising Bread

1 tablespoon of fresh cornmeal, $\frac{1}{2}$ cup scalded milk or water. Add milk to corn-

meal while hot. Keep in a warm place for about 12 hours, or until fermentation begins, indicated by bubbles. Rinse out a bowl or kettle with boiling water, and mix up a stiff batter of about 3 cups of flour with some water, adding $\frac{1}{2}$ teaspoon of salt. Stir into this mixture the fermented cornmeal. Stand in lukewarm water until twice in bulk, keeping at an even temperature. Put about 2 quarts of flour into a large kettle, scooping out a well in the center. Pour in the fermented sponge and add enough lukewarm water or milk to make into a stiff dough which can be kneaded. When quite tough and elastic, about 20 minutes kneading is required, shape into loaves, and put into pans. When risen again twice in bulk, bake in Dutch oven or reflector.

Dough Gods, or Frying Pan Bread

Dough gods may be prepared by adding either "shortening" or sugar, or both, to the mixture, according to their availability and the taste of the camper.

1 sack flour (1 cup only is used)

2 teaspoons baking powder

1 teaspoon salt

$\frac{1}{2}$ cup water

Open the sack of flour, punch a depression in the surface, sprinkle the baking powder

and salt over the exposed area, stir thoroughly with a knife blade mixing the ingredients with the flour, which becomes loosened from the sides and bottom of the depression, until approximately one cup of flour has entered the mixture. Again punch a depression, this time indenting the surface of the prepared flour. Into this cavity pour $\frac{1}{2}$ cup water and stir gently with a knife blade, causing the loose flour on the adjacent walls to tumble gradually into the water. As the paste thickens and approaches a dough, set aside the knife and use the fingers of both hands to stiffen the dough. The fingers should be clean, dry, and covered with flour to prevent the dough from sticking. A couple of deft strokes, tumbling the dough gently about in the flour, will stiffen it sufficiently to be lifted from the sack. If the quantity prepared is more than necessary for one fry pan, it may be easily pulled apart into halves. During the process described, a well greased (about 1 teaspoon bacon fat) frying pan should be kept hot over the fire. It is now removed for a moment to a firm base, and the dough placed in the hot fat and spread evenly about with the back of the fingers, the fingers being freshly protected with dry flour. Next indent

with the forefinger the center of the dough and fill this hole with hot fat. With the back of the knife mark creases which will indicate the divisions into which the loaf will later be broken.

Baking. Place the frying pan and contents immediately over hot coals. As the bottom of the dough bakes shift it in the pan to avoid burning. This requires skill, but is accomplished by a simple little twist of the wrist. Next remove the pan to semi-perpendicular position by propping it near the hot coals. The contents are thus exposed directly to reflected heat. In a few minutes the dough god becomes brown and is baked.

Liquid Yeast

4 medium sized potatoes (pared)

1 qt. water

$\frac{1}{2}$ cup sugar

1 cake dry yeast

1 teaspoon salt

1 tablespoon flour

Cook the potatoes in the water, mash them and add the flour, sugar and salt, to which has been added 2 tablespoons cold water, and cook until thickened. Cool to luke warm and add the yeast cake which has been soaked

in $\frac{1}{4}$ cup lukewarm water. Allow to ferment about 24 hours. Place in a jar and set in a cool, dark place. This will keep about 2 weeks, and the last cup of it may be used in place of a dry yeast cake in making a new supply.

Yeast Bread

About $3\frac{1}{2}$ quarts flour

1 quart scalded and cooled sweet milk, or
water

$\frac{1}{4}$ cup sugar

$\frac{1}{4}$ cup fat

1 cup liquid yeast or 2 dry yeast cakes
soaked in $\frac{1}{4}$ cup lukewarm water

1 tablespoon salt

Mix above ingredients, using only one-third of the flour, and allow to become thoroughly light; stir in remainder of flour and work until perfectly smooth. The amount of flour will vary somewhat with the kind used. Allow to rise until more than twice the original bulk. Shape into loaves with as little working as will permit of smoothness. Allow to rise again and bake in moderate oven. Good bread may be made by adding enough flour at the first to make a stiff dough, thus omitting the sponge entirely.

Rice Cakes

When cold boiled rice is left over, mix with an equal quantity of flour, $\frac{1}{4}$ teaspoon salt, and 1 teaspoon baking powder being added to each cup of the mixture. Then fry as flap-jacks. Cold boiled potatoes or oatmeal may be used in the same way. Rice cakes are best mixed with the water in which the rice was cooked.

COOKING OF CEREALS

Many cereal preparations for making breakfast porridge are on the market, put up in one-pound or two-pound packages, paper or tin, with directions for cooking. In nearly all cases, time allowed for cooking is not sufficient unless the dish containing it is brought in direct contact with the fire, which is not the best way. Porridge should be cooked in a fireless cooker or over hot water, without stirring. If a double boiler is not procurable, improvise one by putting a smaller kettle in a large kettle containing water. Boiled water and salt should always be added to cereals, allowing one teaspoon of salt to each cup of cereal. Cornmeal and finely ground preparations should be mixed with cold water before adding them to the boiling water in order to prevent

lumping. The diet will be much improved if raisins, dates and figs, which are carried in so little space, are added to the cereals while they are cooking.

CEREALS AND VEGETABLES

Macaroni and Cheese

Cook macaroni in boiling salted water twenty minutes, or until soft. Drain. To each cup of cooked macaroni add $\frac{1}{4}$ cup tomato catsup or 1 cup canned tomatoes (this may be omitted), a little cayenne pepper, salt, and two tablespoons of cheese cut in small pieces. Cover with water or condensed milk, diluted, and bake 15 minutes.

Boiled Rice

Wash the rice well and sprinkle into a kettle of salted water, boiling hard all the time. After thirty or forty minutes pour off the water and place the kettle near the fire so that the grains may dry and swell. Rice is most satisfactorily cooked in a fireless cooker.

Rice and Cheese

Boil 1 cup of rice for every six persons, using plenty of water, boiling rapidly to make the grains whole and separate; add $\frac{1}{2}$ teaspoon of

salt. When tender put a layer of the rice into a pan, then a layer of thinly sliced cheese, salt and pepper, another layer of rice, cheese, etc., until the pan is filled. Pour over this 1 cup of diluted condensed milk, sprinkling pepper over the top, and bake.

Baked Beans

Soak 1 quart of beans over night in cold water. Drain, and cover with fresh water adding a pinch of soda, and boil for an hour. Pour off this water, add fresh hot water, and cook until the skins burst and the beans seem quite soft. Add to beans and mix:

1 tablespoon salt

A little pepper

6 tablespoons molasses

$\frac{1}{4}$ cup sugar

4 or 5 slices salt pork or bacon

Place in a pan or bean jar, burying the pork in the beans, and bake from 6 to 8 hours.

Creamed Lima Beans

Soak 1 cup of dried Lima beans for several hours in enough water to cover. Drain. Add 2 pints water and cook slowly until tender. Add 1 cup of condensed milk and let simmer for $\frac{1}{2}$ hour. Season to taste.

Creamed Lentils

Use the same method as that used for Creamed Lima Beans.

Baked Potatoes

Wash the potatoes and bake in a frying pan covered with a lid, or in an oven, or in ashes.

Potatoes Boiled in Jackets

Wash potatoes thoroughly and cut a small piece from each end, which gives vent to the steam and keeps the potatoes from bursting. Put them into cold water (not boiling) and cook gently but continuously, adding salt to the water at first. When done drain the water off, and dry before the fire and serve.

Fried Potatoes

Wash and pare potatoes, cut in $\frac{1}{8}$'s lengthwise, and dry on a clean towel. Fry in fat. Drain and sprinkle with salt. Cold boiled potatoes may be used in place of fresh ones.

Spinach Saute'

Soak dried spinach in a small amount of cold water until it has absorbed a good deal. Boil in the same water until soft. To each cup of this boiled spinach add

1 tablespoon butter or bacon fat
1 teaspoon lemon juice or vinegar
Salt and pepper to taste

Melt fat, add spinach, sprinkle with seasonings, and cook slowly until the fat is absorbed. Add the lemon juice or vinegar and serve.

Creamed Spinach

Soak and cook spinach as in above recipe. To each cup of boiled spinach add
1 tablespoon butter or bacon fat
1 tablespoon flour
 $\frac{1}{2}$ cup milk
Salt and pepper

Melt fat in frying pan, add the cooked spinach, cook for a few minutes, sprinkle with flour and seasonings, stir, add milk gradually. Cook for 5 minutes.

Boiled Hominy

Hominy may be soaked in cold water, and cooked until soft and tender, or boiled without soaking, which will require about an hour. Use 1 cup hominy to 4 cups water. Season to taste. Milk may be added, or bacon fat is also good.

Fried Hominy

Boiled hominy when fried in bacon fat makes a very acceptable dish.

Dried Vegetable Dishes

All dried vegetables should be soaked in water to cover for a period of 24 hours if possible. They then require long, slow cooking, using this same water.

Mashed Squash

Soak squash 12 hours in the proportion of 3 parts of water to 1 part squash. Boil slowly in the same water 30 to 40 minutes. Mash well, add butter, salt, and pepper. Serve.

Mashed Potato

Soak 12 hours in the proportion of 3 parts of water to 1 part potatoes. Boil in the same water 45 minutes to 1 hour. Drain, steam 5 minutes, mash. Add butter, salt, pepper, and a little hot milk. Beat with a fork until creamy. Serve.

Creamed Vegetables

Potatoes, turnips, carrots, and onions which have been soaked and cooked according to the above directions make delicious creamed dishes by adding to them a sauce in the following proportions: For each cup of cooked vegetables make a sauce from $\frac{1}{2}$ cup milk, 1 tablespoon fat, and 1 tablespoon flour. Combine flour and the fat, add milk and cook well. Add vegetables and season to taste.

Buttered Vegetables

Turnips, beets, beans, carrots, and onions cooked according to the above directions are good when served with melted butter or bacon fat.

Glazed Carrots

Soak and cook carrots until tender. Place in a buttered baking dish and cover with a sirup made by boiling 3 tablespoons sugar with a little water. Dot over bits of butter and bake in a slow oven for $\frac{1}{2}$ hour.

Hashed Brown Potatoes

Soak and cook potatoes until tender. Cut in small pieces, place in a frying pan and brown in butter or bacon fat.


Mashed Turnips

Soak and cook turnips until tender. Mash, flavor with butter or bacon fat. Serve.

Vegetable Soup (Evaporated)

To each cup of soup vegetables add 2 cups water and soak for 24 hours. Cook, adding as much water as necessary. Flavor with butter and salt. Meat broth is a good addition.

Potato Soup (Granulated)

 1 cup granulated potatoes
2 cups water

1 cup milk
2 tablespoons butter
2 tablespoons flour
2 slices onion chopped fine
2 teaspoons salt

Cook potatoes in boiling water until tender and easily mashed. Add the milk and thicken with butter and flour rubbed into paste. Cook well.

SOUPS

Bean Soup

1 cup beans
2 quarts water
 $\frac{1}{2}$ cup tomatoes (may be omitted)
1 slice onion
Salt and pepper

Boil the beans and water until the beans lose their shape and can be easily mashed up. Add the tomatoes, onions, salt and pepper, boil 5 minutes and serve. Lentils are good combined with beans in this kind of soup, or split peas may be used.

Peanut Soup

2 teaspoons flour
2 teaspoons peanut butter
1 pint milk Small amount water

Heat milk and stir into it the peanut butter, which has been thinned with a small amount

of water to prevent its forming into lumps. Combine the flour with enough water to form a smooth paste, stir this into the hot milk and allow to cook for several minutes in double boiler. Season to taste.

Split Pea Soup

- 1 cup dried split peas
- 2 quarts water
- 1 pint milk or 1 pint meat broth
- $\frac{1}{2}$ onion
- 3 tablespoons fat (butter or bacon fat)
- 2 tablespoons flour
- $1\frac{1}{2}$ teaspoons salt
- Pepper
- 2-inch cube fat salt pork

Pick over peas and soak several hours, drain, add cold water, pork, and onion. Simmer 3 or 4 hours, or until soft. Rub through a sieve or mash. Thicken with a batter made from the flour and a little water. Add butter or other fat and seasoning. Dilute with milk or meat broth.

Powdered Soups

To one tablespoon or more of the powdered mixture add 1 cup of cold water. Cook until a thickened soup is formed. These soups may be purchased in some variety—pea, bean, lentil, and turtle.

CURING MEATS IN CAMP

Sun-dried or Jerked Meat

For preserving in this manner meat should be sliced in long thin strips and salt worked in, and allowed to stand for a few hours so that it may be absorbed. It should then be hung over cords or poles in the hot sun to dry for a few days. Pepper may be sprinkled on it or it may be smoked well for a day over a thick smoke on a frame of green twigs. When properly cured, the strips are dry to the touch and have shrunk to one-half of their former size.

Cured Fish or Meat

In preparing fish for drying, split them along the back, remove the backbones and entrails, salt, and hang them up on a frame over a slow smudge until they are well smoked. Then place in a trough made from a soft wood log and cover with a weak brine for about thirty-six hours. Smoke them over a small fire for three days. Meat may be cured by the same process.

COOKING MEATS IN CAMP

Meat, game and fish may be prepared in numerous ways in camp. They may be stewed, broiled, roasted or fried. The ten-

derest parts are best for broiling and roasting. The tougher portions are made more palatable by long slow cooking, as stewing and braising.

Stewing

2½ pounds meat, 2 cups potatoes cut in slices, turnips and carrots cut in cubes, ½ onion, 2 tablespoons flour, salt and pepper. Cut meat from the bone in cubes about 1½ inches thick, season with salt and pepper and dredge with flour. Cut fat in small pieces and fry out in hot kettle. Add meat and stir until well seared. When browned, add pieces of bone, cover with boiling water and boil about 5 minutes, then cook at lower temperature until meat is tender. Add the vegetables (except potatoes) the last hour of cooking, and add potatoes 20 minutes before removing from fire. Remove bones, large pieces of fat, and then skim. Thicken with 2 tablespoons flour diluted with enough cold water to pour easily. Dumplings may be added to the stew.

Braising

Place the meat in a Dutch oven or covered kettle with about two inches of hot water in the bottom. Various vegetables or com-

binations of vegetables, as sliced onions, potatoes, turnips, and tomatoes, may be added and cooked slowly for several hours. One hour before removing from the fire salt should be added.

Gravy may be made by pouring some of the liquor from the kettle and adding a little hot water, salt and flour (4 tablespoons flour to 1 cup liquid) mixed until smooth, and cooked until thick.

Broiling

Meat should be cut at least one inch thick for broiling. Venison should be well pounded. Sear in the flames of the fire, and then cook in front of a good bed of coals.

A steak one inch thick should be cooked about ten minutes.

Steaks may be broiled between two large, clean, flat, hot stones.

Roasting a Bird

In roasting a bird, clean it in the usual way, then split it down the back and put two or three little sticks in it to keep it as flat as possible. If you have any bacon, cut a few holes in the thick part of the bird and stick some thin strips of bacon in the meat, then rub

salt on it. Find a pole several feet long—on one end tie a string and on the other end of the string tie the bird. Set the pole slanting in the ground or lean it against a log, weighting the lower end with a rock. Let the bird hang close to the coals of the camp fire. Twist occasionally, or as often as it stops revolving. The longer the string, the longer the turning goes on without attention. A short piece of wire for the lower part of the string lessens the danger of the string burning.

Roasting Meat

Build a high fire against a log or pile of rocks to reflect the heat. Keep the roast in the flames until the outside is well seared, and then cut gashes in the meat and insert strips of bacon or salt pork. Hang on a thick string from a pole or tripod in front of the fire. Put a pan underneath to catch the drippings. Turn frequently, and baste with the meat fryings. Make gravy from the drippings.

To roast in a reflector, put the meat in a pan containing a little water, and cover the top of it with slices of bacon. Baste frequently. When the front of the roast is cooked, reverse the pan.

Barbecuing

To barbecue is to roast the whole carcass of an animal. Baste often with the following dressing.

1 pint vinegar

½ can tomatoes

1 teaspoon pepper (cayenne)

1 teaspoon salt

2 teaspoons black pepper

2 tablespoons lard

Tie a piece of cloth on a stick and keep the meat well basted with the dressing as long as it is on the fire.

Baking in a Hole

Dig a hole in the ground about 18 inches square and 12 inches deep. Place kindling in it and over the hole build a cob house by laying split wood sticks across, not touching each other, and so on until you have a stack two feet high. Set fire to it and burn to coals. Cut up the meat, and season, adding a small piece of fat pork. Put in a kettle, pour in water to cover, put on the lid, rake coals out of the hole, putting the kettle in. Shovel the coals around and over it, cover all with a few inches of earth and let it alone over night.

Baking An Animal in Its Hide

If the animal is too large to bake entire, cut off what you want and sew it up in a piece of its hide. Line the hole with flat stones. Rake out coals and put meat in, cover first with green grass or leaves then with coals and ashes and build a fire on top. When done remove the hide.

Baking in Clay

Dress the animal, but leave the skin and hair or feathers on. If it is a large bird, cut off the head and feet and pinions, and pull out tail feathers and cut tail off (to get rid of oil sack). If fish, do not scale. Stir clay in a pail of water until like thick porridge. Dip the bird in this, and repeat until it is a mass of clay. Lay this in the embers or ashes, being careful to dry the outside. Bake until the clay is almost burned to a brick.

This mode of cooking should never be tried in regions where there is not real clay.

Venison—to dress and cook

“If possible, skin the deer while yet warm, and it will save trouble. To skin a frozen animal is difficult. Hang the deer by one hind leg, cut the skin from the top joint to the second

joint of the leg, make an incision around the hock and then begin the process of skinning downward. It will peel quite easily if handled gently. When the legs are bare, cut the skin down the center of the body to the breast, being careful not to cut into the flesh. Then with gentle force, draw the skin off the whole carcass, using the knife when necessary. A sharp knife is indispensable. The head may be skinned or it may be cut off without. After the deer is skinned, hang up by the hind legs, insert a sharp knife in the breast and split open the full length. Open the deer and keep open with a smooth and slender stick. Put the hand above the kidney and, with a gentle pull release the entrails, which will come out easily, leaving the liver, heart, and lungs. The animal is now ready for use. Let it hang for twenty-four hours before cutting up. Then split in quarters, the hind quarters being the best. The flesh, if roasted, will be dry if bacon is not used on it. Grill chops over hot coals or on red hot griddle. Do not try to fry in fat. The liver and heart are good baked in a pan in the oven with onion and small cubes of salt pork.”—Kephart’s “Camp Cookery.”

Rabbits and Squirrels

Rabbits and squirrels are pests to the farmer and except in the spring of the year are desirable food.

The "gray digger" squirrel and the "cotton tail" rabbit are abundant in many sections of the country.

The Scout in utilizing such game for food not only adds variety to his diet in camp but performs a distinct service to the farmer.

Fried Rabbit

Rabbits must be very tender for this purpose. Clean, cut into joints; soak for half an hour in salt and water, (1 tablespoon of salt to 1 quart of water) dip in flour and fry brown in one-third cup of lard or substitute.

Stewed Rabbit

The older rabbits may be stewed. Clean, wash, cut into joints and soak rabbit in salt and water, (one tablespoon salt to one quart water). Put in kettle with cold water enough to cover, salt slightly and stew until tender. Boiled onions (three medium sized to one rabbit) may be added to this stew if desired.

Fried Squirrel

The young squirrel may be fried. (Follow directions for frying rabbit.)

Squirrel Stew

This dish may be prepared by substituting squirrel for meat in recipe for Mulligan.

Broiled Squirrel

Young squirrel or rabbit may be broiled according to directions for roasting a bird.

Note: To hold over Fish or Game.

Draw as soon as possible, rinse with soda and water (1 tablespoonful of soda to 1 quart of water); then with fresh cold water. Wipe dry and rub lightly with a mixture of salt and pepper, and hang in a cool place with a cloth thrown over them. A little soda water will help to sweeten fish from muddy waters.

Carp, catfish and other fish taken in stagnant or muddy waters, are improved by soaking over night in fresh water, moderately salted.

Bacon Fritters

Slice bacon or salt pork, soak in cold water for an hour, roll in cornmeal or flour, and fry in bacon fat.

Bacon and Gravy

Fry bacon until light brown and crisp. Remove from the pan and stir in some flour, mixing thoroughly with the fat in the pan, fat and flour being in about the following

proportions: for 1 cup gravy, 2 tablespoons bacon fat and 2 tablespoons flour. Brown these together and add the cup of hot water gradually, stirring to avoid lumps.

Creamed Dried Beef

Dilute $\frac{1}{2}$ pint of condensed milk by adding twice the quantity of water. Put over the fire and bring to the boiling point. Stir together about 4 tablespoons flour with enough water to make a thin batter. Add this to the hot milk and stir until it becomes thickened. Add a 1-lb. can of dried beef, or 2 cups of any dried meat or fish, cut in small pieces.

Corned Beef Hash

Chop some canned corned beef fine, with slices of dried onions. Add two parts of boiled potatoes to one of the meat, cutting up in small pieces. Season with pepper and a little mustard. Put some pork fat in a frying pan, melt, add hash and cook until nearly dry and a brown crust is formed. Evaporated potatoes and onions can be used instead of the fresh.

Boiled Corned Beef

Put the raw meat into enough cold water to cover it. Let it come slowly to a boil, and then simmer until done.

Mulligan

Put over the fire a joint of beef or mutton placed in cold water, and bring to the boiling point, cooking slowly until tender. Add onions cut in small pieces. Tomatoes, peas, corn, and other vegetables may be added. Cook until vegetables are well done. Thicken with a little flour mixed with a small quantity of water to form a thin batter. Cook for at least ten minutes. Vegetables used in making Mulligan may be fresh, dried, or left-over ones, and the proportions may vary according to the amount available.

Codfish Balls

Shred the fish into small pieces. Pare some potatoes (1 cup of fish to 1 pint of raw potatoes). Cook the potatoes until soft, drain off the water, and mash fish with them. Beat until light, add seasoning, and shape into cakes. Fry in very hot fat.

Stewed Codfish

Soak over night in cold water. Place in pot of fresh cold water and heat slowly until soft.

Codfish Hash

Mash stewed codfish with potatoes and onions, season, and fry like corned beef hash.

Fish Chowder

Cut two or three small slices of pork or bacon and fry out in a kettle. Put in 3 or 4 onions, then a cup of fish cut in slices, 1 cup of potatoes, and $\frac{1}{4}$ cup of dry bread. Season with salt and pepper, add 1 quart of water and stew slowly until well done.

Fish Cakes

Take cold cooked fish and remove the bones; mince and mix with equal parts of bread crumbs and potatoes. Season well and fry in a little fat. Brown well on both sides. These are improved by the addition of a little onion.

Fish Baked

This method of cooking fish is delicious, and a variation from the usual frying. Clean the fish, but do not scale; leave head, tail and fins intact, and put a strip of bacon in each fish. Dig a hole large enough for the fish to lie in with several inches to spare. Build a fire in it and get a good hot bed of coals. Rake out half of them, cover the remainder with an inch of grass, place the fish on the grass, cover with more grass, and pile the rest of the hot coals on top. Cover the hole with a frying pan or flat stones, or earth. The fish

may be wrapped in wet paper. It requires at least two hours to cook a small fish in this way; three for a large fish, under five pounds.

Fish Planked

Shad, flounder, sunfish or any other flat fish may be planked. Cut off the head and tail, split open the back, but leave the belly whole so that the fish may be opened wide like a book and tacked on a plank or piece of bark. Tack some thin slices of bacon or pork to the end of the fish that will be uppermost when before the fire and, if desired, a few slices of raw onion sprinkled with pepper and salt. Sharpen one end of the board and drive it into the ground before a bed of hot coals. Catch the drippings in a tin cup, and baste the fish occasionally until done. Oak, hickory or alder is best for fish planks.

Smoked Herrings

(1) Scald in boiling water until the skin curls up, then remove head, tail and skin. Clean well. Put into a frying pan with a little bacon fat. Fry slowly for a few minutes. A little vinegar is an improvement. (2) Clean, remove skin, and toast on a stick over the coals.

Salmon Creamed

Break the cooked salmon into small pieces and heat with about one-half the quantity of milk. Thicken with a little flour and water batter. Season with salt and pepper.

Crabs

Crabs are known as "soft shelled" if caught just as the old shell is shed, and "hard shelled" when the shell is mature. Crabs are in season from first of April through September. They are cooked in the shell. When cooked the back should be broken off and entrails washed out. They may either be boiled for twenty minutes in salted water or sea water without addition of more salt.

Clams

(1) Clams are procurable from sandy beaches at low tide. Open shell with knife and remove body using the soft part, which is most digestible. Roll in flour and fry.

(2) Clams in shells may be placed on seaweed over live coals and baked.

(3) The necks of the long-neck clams are used as follows: Split open lengthwise; scald to remove skin and sand. Run through grinder, or chop in a bowl, and use in chowder or soups.

Mussels

Mussels are in season through December to May. They should be avoided if taken in water near mouth of streams likely to be polluted with sewage. Only those which are under water all the time should be used. They are taken on the rocks at low tide. Wash well. Place very near a hot fire, and roast until the shell opens. The fibrous part is poisonous, and only the yellow mussels should be used. This mussel is served with salt and butter, or may be ground or chopped, and used as clams in chowder or soups.

Pot Pie

Fill a Dutch oven or kettle two-thirds full with fresh mutton or beef, and cook until tender. Add three or four potatoes, peeled and sliced, and two onions cut in small pieces. Return to the fire and cook until the vegetables are half done, then spread a dough over the top made of the following ingredients:

2 cups flour

4 teaspoons baking powder

$\frac{1}{2}$ teaspoon salt

5 tablespoons fat

Water or condensed milk to make a soft dough. Cover the kettle with a lid, heap-

ing coals on top, and bake the pie until the crust is browned.

Stew and Dumplings

Make a stew out of the meat, remove the bones. About twenty minutes before serving add sliced potatoes and onions, and drop in by the tablespoonful a cup of soft biscuit dough. Put on the cover and boil until done. Avoid burning.

Meat Gravy

Take equal quantities of hot meat fat and flour, stir until well browned, and add one pint of boiling water or condensed milk to four tablespoons of flour. Cook five minutes, season with salt and pepper.

DESSERTS

Dried-Fruit Sauce

Soak 1 cup of fruit in 3 cups of cold water for at least 2 hours; over night is better. Cook slowly until tender. Add sugar, the amount depending upon the fruit, and cook 15 or 20 minutes. Any kind of dried fruit, as loganberries, rhubarb, peaches, prunes, etc., may be used for sauce.

Dried-Apple Jelly

1 pound of evaporated apples.

Stew apples in $1\frac{1}{2}$ quarts of water, remove apples and use as sauce. There should be left 1 quart of hot juice. Into it put 1 pound of sugar (2 cups). Boil without stirring until the juice becomes sirupy and two drops fall from the side of a spoon at once. Pour into a jar or cup. This makes 1 pint of jelly.

Dried-Fruit Pie

Crust

$1\frac{1}{2}$ cups flour

$\frac{1}{4}$ teaspoon salt

$\frac{1}{3}$ teaspoon baking powder

6 tablespoons fat

$\frac{1}{4}$ cup water (about)

Mix flour, salt and baking powder together, rub in the fat, then add the water a little at a time until a stiff dough is formed. Avoid stirring this, as that will make it tough. Roll out, line a pan, and fill with any cooked fruit. Cover with a crust and bake.

Deep English Pie

1 cup flour

2 teaspoons baking powder

$\frac{1}{4}$ teaspoon salt

2 tablespoons fat

2 tablespoons sugar

Enough condensed milk or water to make a soft dough.

Mix the dry ingredients and rub in the fat. Then add the liquid a little at a time to form a soft dough. Drop this dough onto cooked fruit, covering completely. Bake in a reflector or oven.

Fried Fruit Pie or "Turnover"

1 cup flour

1 tablespoon fat

1 teaspoon baking powder

$\frac{1}{4}$ teaspoon salt

Liquid to make a dough as for biscuit

Mix as for biscuit and roll out $\frac{1}{4}$ inch thick. Melt 1 tablespoon of fat in a frying pan and place the pie crust in. Lay some cooked fruit on half of the crust and fold the other side over, pressing the edges together. Fry on one side until brown, and turn over, browning on the opposite side. More fat may then be added for finishing it.

Fruit Loaf

1 cup flour

2 teaspoons baking powder

1 tablespoon sugar

$\frac{1}{4}$ teaspoon salt

1 tablespoon fat

Water enough to make dough to roll out.

$\frac{1}{2}$ cup cooked dried prunes, peaches or apples.

Make a dough of first five ingredients and roll or pat out with the hands to $\frac{1}{2}$ inch in thickness. Cover with the fruit, sprinkle with sugar if not sweet enough. Roll up and bake about $\frac{1}{2}$ hour, pouring over a little fruit juice.

Hunter's Pudding

$\frac{1}{2}$ cup finely chopped salt pork (soaked over-night in water)

$\frac{1}{2}$ cup molasses

$\frac{1}{2}$ teaspoon soda

$\frac{1}{2}$ cup condensed milk or water

$\frac{1}{4}$ cup sugar

$1\frac{1}{2}$ cups flour

$\frac{1}{2}$ teaspoon cinnamon

$\frac{3}{4}$ cup raisins

Mix dry ingredients. Add molasses and milk to salt pork. Combine mixtures. Oil a lard pail, turn in the pudding, cover, set in a kettle of boiling water and steam for two or three hours. Serve with the pudding sauce.

Sauce

$\frac{1}{2}$ cup sugar

Pinch of salt

$\frac{1}{2}$ cup flour

Put the sugar in a frying pan and stir constantly until it turns a dark brown and becomes sirupy, but not burned. Just before it changes from a light brown to dark, add the flour and salt, and finish browning. Then add 2 cups water and stir until thickened.

Gingerbread

2 cups flour

$\frac{1}{2}$ cup molasses

2 tablespoons lard or bacon fat

$\frac{1}{2}$ cup sugar

Enough water to make a thick batter

Mix with the flour and sugar $\frac{1}{2}$ teaspoon of soda and 1 teaspoon of ginger and, if possible, a handful of raisins or dried currants. Add the molasses and water, and bake in a medium oven or reflector. (Contributed by Jay Billings, Forest Supervisor, Lakeview, Oregon.)

Ginger Cookies

2 cups flour

$\frac{1}{2}$ cup fat

$\frac{1}{2}$ cup sugar (brown if possible)

$1\frac{1}{2}$ teaspoons ginger

$\frac{1}{2}$ cup molasses

$\frac{1}{2}$ teaspoon soda

1 teaspoon baking powder

$\frac{1}{2}$ cup water

Mix the sugar and fat, and add to this the flour and other dry ingredients, alternately with the water and molasses which have been mixed together. Roll out and cut like biscuit, or thin with a little water and drop from a spoon onto an oiled pan.

Camp Cookies

2 cups flour

2 tablespoons melted fat

$\frac{1}{2}$ cup sugar

$\frac{1}{2}$ teaspoon cinnamon and cloves or allspice

3 teaspoons baking powder

$\frac{1}{2}$ cup raisins

Mix the flour, sugar and baking powder together, pour in the melted fat, then add the raisins and enough water to make of the consistency of baking powder biscuit. Roll out about $\frac{1}{2}$ inch thick, cut with a can, and bake.

Rolled Oat Cookies

2 cups rolled oats

2 cups flour

$\frac{1}{2}$ teaspoon salt

$\frac{2}{3}$ cup sugar

1 teaspoon cinnamon

Mix all, and work into it $\frac{3}{4}$ cup butter or other fat. Dissolve 1 teaspoon soda in $\frac{3}{4}$ cup hot water. Add, and roll out, cutting with a can, or thin a little and drop from a spoon onto a greased pan.

Fritters

1 cup flour

$\frac{1}{4}$ teaspoon salt

$\frac{3}{4}$ teaspoon baking powder

3 teaspoons sugar

$\frac{1}{4}$ teaspoon salt

4 teaspoons milk (condensed)

1 egg (fresh or dried)

Add milk and beaten egg to the dry ingredients. Beat well while mixing, and drop from a spoon into hot fat. Fry till brown and cooked through.

Doughnuts

1 cup flour

$\frac{1}{4}$ teaspoon salt

1 teaspoon baking powder

1 teaspoon melted fat

$\frac{1}{3}$ cup sugar

1 egg

Nutmeg

Mix dry ingredients. Add egg well beaten and enough milk to make a soft dough. Roll

out $\frac{1}{2}$ inch thick. Cut and fry in deep hot fat.

Rice Pudding No. 1

$\frac{1}{2}$ cup rice

$\frac{1}{2}$ teaspoon cinnamon

$\frac{1}{4}$ teaspoon salt

4 tablespoons sugar

A few raisins

2 tablespoons butter if possible

Boil the rice until tender in about a pint of water to which the salt has been added. Then add the other ingredients and cook for about 15 minutes.

Rice Pudding No. 2

2 cups cold boiled rice

$1\frac{1}{2}$ cups milk

2 eggs (if possible)

$\frac{1}{2}$ cup raisins

$\frac{1}{2}$ cup sugar

Beat eggs, add the sugar, rice, etc., and bake in a pan until firm.

Camp Pudding

1 cup fat salt pork (cut in dice)

3 cups flour

1 cup sugar

1 cup currants or other dried fruit

2 teaspoons spices

3 teaspoons baking powder

Have ready a large kettle of boiling water and a large bag made from a flour sack. Dip the bag into boiling water, remove and dredge flour on the outside of it. Roll the pork in flour, add the other ingredients, and then enough water to make a good thick paste or batter. Turn this out into the floured cloth. Tie the bag securely. Allow room for swelling to twice its bulk. Drop into the boiling water and boil 2 hours. If the water stops boiling the pudding will be spoiled.

Sauce for Pudding

$\frac{1}{4}$ cup sugar

1 cup condensed milk or water

2 tablespoons flour

1 teaspoon spice

Mix flour, spices, and sugar together and add the milk slowly, stirring until smooth. Cook until thickened. Remove from fire and, if possible, add vinegar to taste.

Huckleberry or Sallalberry Cobbler

Put $1\frac{1}{2}$ gallons huckleberries in a stew kettle without any water. Boil 5 minutes. Pour off the juice. Prepare the dough as for Deep

English Pie, using twice the recipe. Roll out about $\frac{1}{2}$ inch thick and cut a round of the dough to fit the bottom of a frying pan. Put in the pan and brown on both sides. Put in the berries about 2 inches thick. Make the upper crust large enough so it can be tucked down and connect with the bottom crust. This can be done by tilting the pan so that the berries will slide to one side of the pan. Bake in a reflector or oven. (Contributed by C. B. Reese, Foster, Oregon.)

Molasses Cake

1 $\frac{1}{4}$ cups flour
1 $\frac{1}{2}$ cup brown sugar
1 $\frac{1}{2}$ cup molasses
2 teaspoons baking powder
1 $\frac{1}{4}$ teaspoon cinnamon or allspice
1 tablespoon lard

Mix in same manner as the gingerbread, using about $\frac{1}{2}$ cup of water, or until a medium batter is obtained. Bake in oven or reflector.

Snowflake Cake

$\frac{1}{3}$ cup sugar
1 cup flour
1 $\frac{1}{4}$ teaspoon vanilla
1 $\frac{1}{2}$ tablespoons lard (or 2 tablespoons butter)

2 teaspoons baking powder

$\frac{1}{2}$ cup condensed milk

Mix the butter and sugar well until creamy. Add the flour, mixed with the baking powder, alternately with the liquid. Stir well and bake.

Plain Cake (with eggs)

$\frac{1}{2}$ cup fat

1 cup sugar

2 small eggs

$\frac{1}{2}$ cup milk (or water)

2 cups flour

$2\frac{1}{2}$ teaspoons baking powder

$\frac{1}{4}$ teaspoon vanilla

Thoroughly mix sugar and fat. Add well beaten eggs. Add the baking powder to the flour and mix well. Mix the flour and liquid alternately with the butter and sugar. Beat well and bake in an oiled pan. This cake may be varied by the addition of chocolate, nuts, spices, etc.

Pork Cake

$\frac{2}{3}$ cup hot coffee

$\frac{1}{3}$ cup chopped salt pork

2 tablespoons raisins

2 tablespoons currants or cut prunes

1 teaspoon spices

$\frac{2}{3}$ cup sugar

$1\frac{1}{2}$ cups flour

$\frac{1}{3}$ teaspoon soda

2 teaspoons baking powder

Chop the pork fine and pour the hot coffee over it. Stir into this the flour and other ingredients, stirring thoroughly to remove lumps. Bake in an oiled pan for an hour, or steam in a lard pail for about 3 hours covering the pail tightly.

DRIED FRUIT DESSERTS

Steamed Carrot Pudding

1 cup sugar

$\frac{1}{3}$ cup butter

1 cup carrots (dried)

1 cup flour

1 cup chopped raisins

$\frac{1}{3}$ teaspoon each allspice, cinnamon, cloves,
and salt

1 cup granulated potatoes (fresh potatoes
may be used)

1 teaspoon soda

Soak carrots for 12 hours, then chop them. Soak granulated potatoes for 20 minutes. Combine ingredients in the order given and steam for 3 hours.

Baked Dried Pears

Soak dried pears for 12 hours, add a few chopped nuts and a little butter; sprinkle some sugar over the top and put a little water in the pan. Bake slowly for $\frac{3}{4}$ of an hour.

Dried-Pear Butter

Soak pears for 12 hours, cut in pieces, cook in the same water (adding sugar to taste) until they have cooked to pieces and are the consistency of marmalade.

Pickled Dried Pears

Soak pears for 12 hours. To six pears add $\frac{1}{2}$ cup vinegar, 1 stick of cinnamon, 2 cloves, and enough brown sugar to give a good flavor. Cook about $\frac{1}{2}$ hour and let stand for one day.

Prune Loaf

Make a biscuit dough and roll into a sheet. Cover with stewed prunes, roll into shape and bake in a quick oven. When brown pour over a sauce made with $\frac{1}{2}$ cup water, $\frac{1}{4}$ cup of sugar and 1 tablespoon butter.

PART III.

SUGGESTIVE OUTLINE FOR THE TEACHING OF CAMP COOKERY

This brief outline has been included with the hope of assisting those who wish to introduce courses of Camp Cookery in schools, or give instructions to Boy Scouts or Camp Fire Girls. In the first six lessons it is desirable to do the laboratory work indoors, where the underlying principles of Camp Cookery may be illustrated by preparing the various kinds of foods under the most favorable conditions. At this time a well correlated series of discussions on food requirements should be given in connection with the laboratory work. Necessarily, these discussions must be brief, pointed, and applicable to camp diet.

After the principles of preparing the different kinds of food are familiar, and the technic of the class is satisfactory, the remaining lessons should be given out-of-doors, under as typical conditions as possible. It is desirable to furnish equipment which would be suitable for preparing meals over an open fire. A reflector, which may be made by any tinner, is essential for baking. The kettles,

pans and dishes should be light and durable. The dishes must be not only light but unbreakable. The number of utensils will, of course, depend on the number of groups into which the class has been divided. It is usually convenient to have groups of four men, each group preparing all parts of a complete meal. A group should make its own fire, and by dividing the work differently, experience in cooking all kinds of foods is provided for each member of the class. It has been found convenient to provide each group with a complete kit of utensils, also small cans of salt, sugar, fat, baking powder, etc., for which a group has the responsibility of transportation to the camping place. Much confusion may thus be avoided. Each of the last six lessons should consist of a complete meal, and the time of meeting should be so adjusted as to replace the evening meal on that day.

A suggested outline for these meals has been included, and into these lessons the teacher may introduce various kinds of breads, soups, desserts, and meats, which will form well-balanced and appetizing combinations. The first lesson out-of-doors is likely to be rather difficult for the inexperienced, and should be made very simple. This meal may be a

breakfast, and each groupd may prepare a different type of meal, making various combinations suitable for breakfast in camp.

The suggestions on building fires and making cranes in part I may be helpful to those unused to camp life. The most important thing in the first lesson is to learn how to build and keep a successful cooking fire. If possible, an improvised table and bench should be made by each group.

The camping place should be accessible, near good water, and with wood available which can be used for fuel. It is well to select as sheltered a place as possible for building fires, especially in a windy location.

LESSON 1

Laboratory Work—

Quick Breads
Flapjacks
Dough boys
Beverages
Tea
Coffee

Discussion—

Introduction to the study
of food
Uses of food in the body
Food groups

LESSON 2

Quick Breads—continued
Emergency biscuits
Baking powder biscuits
Sour dough bread
Corn meal muffins
Beverages
Cocoa

Food requirements
How determined
How affected

LESSON 3

Yeast bread	Detailed study and comparison of fuel values of foods
Review of baking powder biscuits	
Cereals	Exhibit of the hundred calories portions
Rice	
Rollled oats or farina	Value and methods of cooking cereal

LESSON 4

Meat	The protein requirement
Mulligan or stew	Discussion of food combinations
Broiled steak or chops	
Boiled meats	
Soups	
Meat soups	
Additions such as dried vegetables, etc.	
Concentrated soups	
Bean, pea, lentil	

LESSON 5

Vegetables	Mineral requirements
Fresh	Importance of furnishing foods containing iron, etc.
Potatoes	Sources
Greens, etc.	
Dried	
As large a variety as possible	The making of rations suited to various conditions
	Class-work on preparing rations

LESSON 6

Dried Fruits	Camp Equipment
Prunes, apricots, etc.	Consideration of necessities in view of weight, compactness, and serviceableness.
Desserts	Equipment under all conditions
Pies, camp cakes, cookies, etc.	One man with and without a pack.
	The larger camp.

Note: The number of foods prepared in each lesson will depend on the length of the class period, and working facilities. Three hours once a week is much better than a shorter period twice a week. It is sometimes desirable to review one or two fundamental recipes, like biscuits, until each member of the class is proficient. The number of recipes made by each student should depend upon the length of the lesson.

LESSON 7 (Out-of-doors)

Breakfast in Camp—

Suggested menu outline

Cereal

Fruit (if possible)

Quick bread (to be
cooked by means
of a frying pan)

Salt meat or substitute

Beverage

Fire building

Making of a crane

Begin construction of
work table.

LESSON 8

Dinner in Camp—

Menu outline

Meat—gravy

Vegetables

One starchy

One succulent

Quick bread

Dessert

Beverage

Use of a reflector

Complete table and bench

Note: In this lesson dried fruits and vegetables should be introduced and prepared in the simplest ways. The bread may be baked in the reflector, and may be emergency biscuits or cornmeal bread.

LESSON 9

Dinner in Camp—

Outline same as in Lesson 8

Introduce more difficult recipes, as baking powder biscuits for the bread, a fruit pie, or a pudding for dessert, and more elaborate vegetable recipes.

Broiling over a fire on a spit.

LESSON 10

Dinner in Camp—

Outline same as in Lessons 8 and 9

Preparing one rather difficult recipe, as cake or cookies, and try cooking meat or a fish in the ground.

Baking in the ground

Use of clay, grass, wet paper.

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